

09/758,775

PATENT

IN THE CLAIMS:

- 1-7. (Cancelled).
- 8-21. (Withdrawn from consideration in this application).
22. (Canceled).
23. (Currently Amended) The light valve of claim ~~22~~ 42 wherein said liquid crystal cell is an LCoS cell.
24. (Currently Amended) The light valve of claim ~~22~~ 42 wherein light incident to the light valve is between ~~100~~ 10° and ~~200~~ 20° off-axis.
25. (Currently Amended) The light valve of claim 23 wherein light incident to the light valve is ~~150~~ 15° off-axis.
26. (Currently Amended) The light valve of claim ~~22~~ 42 wherein said liquid crystal cell has a twist angle ranging from ~~400~~ 40° to ~~650~~ 65°.
27. (Original) The light valve of claim 26 wherein said liquid crystal cell is in twisted nematic mode.
28. (Currently Amended) The light valve of claim ~~22~~ 42 wherein the horizontal axis of said polarizer and the horizontal axis of said analyzer are ~~900~~ 90° apart.
29. (Canceled).
30. (Currently Amended) The light valve of claim ~~29~~ 42 wherein said retarder has a retardation value centered at 530 nanometers and a retardation angle centered at ~~890~~ 89° in a red band of light.

09/758,775

PATENT

31. (Canceled).

32. (Currently Amended) The light valve of claim ~~34~~ 43 wherein said retarder has a retardation value centered at 460 nanometers and a retardation angle centered at 89° in a green band of light.

33. (Canceled).

34. (Currently Amended) The light valve of claim ~~33~~ 44 wherein said first retarder has a retardation value centered at 370 nanometers and a retardation angle centered at ~~890~~ 89° in a blue band of light.

35. (Withdrawn from consideration in this application).

36-41. (Canceled).

42. (New) A light valve for use in high contrast reflective microdisplays, comprising:

- a twisted nematic mode reflective liquid crystal cell;
- a color filter positioned to accept non-polarized light incident to the light valve;
- a linear polarizer positioned between said color filter and said liquid crystal cell to impart a polarization to the incident light;
- an analyzer positioned in the path of the light reflected by said liquid crystal cell; and
- a retarder positioned between said liquid crystal cell and said analyzer in the path of the light reflected by said liquid crystal cell, the retarder having a retardation value ranging from 430 nanometers to 630 nanometers to reduce ellipticity of the reflected light and a retardation angle ranging from 87.6° to 90.2° in a red band of light;

09/758,775

PATENT

wherein light incident to the light valve is generally off-axis to said liquid crystal cell, and whereby polarization axes of light incident and light reflected are generally matched when the liquid crystal cell is in an off state.

43. (New) A light valve for use in high contrast reflective microdisplays, comprising:

a twisted nematic mode reflective liquid crystal cell;

a color filter positioned to accept non-polarized light incident to the light valve;

a linear polarizer positioned between said color filter and said liquid crystal cell to impart a polarization to the incident light;

an analyzer positioned in the path of the light reflected by said liquid crystal cell; and

a retarder positioned between said liquid crystal cell and said analyzer in the path of the light reflected by said liquid crystal cell, the retarder having a retardation value ranging from 350 nanometers to 550 nanometers to reduce ellipticity of the reflected light and a retardation angle ranging from 87.5° to 90.5° in a green band of light;

wherein light incident to the light valve is generally off-axis to said liquid crystal cell, and whereby polarization axes of light incident and light reflected are generally matched when the liquid crystal cell is in an off state.

44. (New) A light valve for use in high contrast reflective microdisplays, comprising:

a twisted nematic mode reflective liquid crystal cell;

a color filter positioned to accept non-polarized light incident to the light valve;

a linear polarizer positioned between said color filter and said liquid crystal cell to impart a polarization to the incident light;

an analyzer positioned in the path of the light reflected by said liquid crystal cell;

09/758,775

PATENT

and a retarder positioned between said liquid crystal cell and said analyzer in the path of the light reflected by said liquid crystal cell, the retarder having a retardation value ranging from 280 nanometers to 460 nanometers to reduce ellipticity of the reflected light and a retardation angle ranging from 87.7° to 90.3° in a blue band of light;

wherein light incident to the light valve is generally off-axis to said liquid crystal cell, and whereby polarization axes of light incident and light reflected are generally matched when the liquid crystal cell is in an off state.